Histological examinations were carried out in the case of the two Mallard, the results in the two examined microscopically, and the other on macroscopic appearances suggesting ovarian agenesis.

The comments throughout this paper are intended to stimulate and advance our knowledge of what is a line of research of absorbing interest and of no little importance as a biological study.

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Wanderings of the Blue-winged Pitta to Australia

by D. L. SERVENTY
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In November, 1927, Mr. N. E. Spry, the owner of Mandora Station, Wallal, between Port Hedland and Broome, Western Australia, picked up a dead pitta in the bush and sent it to the Western Australian Museum, Perth, where it was received on 1st February, 1928. Here it puzzled the Curator (Mr. L. Glauert) and local ornithologists, as this arid country offers no suitable habitat for such a species, particularly as it was identified as a Blue-winged Pitta (Pitta moluccensis*), a Malayan species, hitherto unknown from Australia. On 2nd February, 1931, a second bird of the same species was received at the Museum from Mr. Ah Chee, of Derby, and would presumably have been found about the same time of the year as Mr. Spry's bird, namely about November, 1930. In a press statement, published in the West Australian newspaper of 25th February, 1931, Mr. Glauert could only account for the occurrences as being escaped cage-birds.

This has been the accepted view of Australian ornithologists since then (e.g. Whittell, 1943; Whittell and Serventy, 1948). Despite this, Mathews (1943) described the remains—the specimens were received in rather poor condition and had to be preserved as mummies—as a new Australian species, Cervinipitta kimberleyensis, but conceded that it might be a subspecies of C. moluccensis. On this authority Australia was admitted as being within the range of the Blue-winged Pitta by Delacour, 1947: 192.

In October, 1966, whilst returning from England, I was able to spend a few days with Dr. Ian Nisbet at Kuala Lumpur, Malaysia. Through the kindness of Dr. Nisbet and Lord Medway I accompanied bird-ringing teams at Fraser's Hill, some 70 miles distant from Kuala Lumpur. Fraser's

Hill is a resort in rain-forest at an altitude of 4,250 ft. The southward migration was well under way and mist-netting was carried on at an illuminated telecommunications tower. On misty nights large numbers of migrants are taken in the nets, ringed and released. Excellent conditions for these operations obtained on the nights of 22nd/23rd and 23rd/24th October. On the two evenings four individuals of the Blue-winged Pitta (Pitta moluccensis) were taken and, examining them, I was at once reminded of the Western Australian occurrences of almost 40 years pre-

viously. Dr. Nisbet informed me of the wide migratory habits of the species in Malaysia. The species is a long distance migrant, and one which habitually gets into trouble whilst crossing the sea and then turns up in unexpected places. Thus it had been taken at lighthouses and even on ships on voyage. There are several references in the literature to its turning up at odd places. Robinson & Chasen (1939: 197) state that "in the autumn it acrives in great numbers from the north, and from October onwards it is very common as a bird of passage on the small islands in the Straits of Malacca". Madoc (1947: 126) states that "at lighthouses along our coasts (it is) a bird that is killed frequently on the lantern during autumn migration". Batchelor (1961) reports that his ship was invaded by a "large flock" of Blue-winged Pittas at 9 p.m. on 13th October, 1958, a few miles off Labuan, North Borneo. Jean Delacour informs me (in litt., 4th September, 1967) that he found the Blue-winged Pitta to be a common migrant in southern Indo-China and the Straits of Malacca. On several occasions a number of individuals were caught by him on the ship during crossings in autumn and spring. He saw it several times in the gardens of Saigon in the winter. Smythies (1960) records moluccensis as a common winter visitor in Borneo. Gibson-Hill (1949: 146) summarises its status in Malaya as essentially a passage migrant.

In view of its migratory behaviour in Malaysia and neighbouring areas I now feel that the 1928 and 1930 records from northern Western Australia may be safely attributed to natural wanderings—an explanation already suggested by Dr. W. D. L. Ride, Director of the Western Australian

Museum (in Serventy, 1958: 418).

Apparently the Malay Peninsula is the normal southern limit of the species' migratory range as it is not ordinarily found in Java (cf. Bartels and Stresemann, 1929), Timor (Mayr, 1944), or New Guinea (Rand and Gilliard, 1967).

The dimensions of 12 birds netted at Fraser's Hill, measured by Dr.

Nisbet, and kindly provided by him, are as follows:

Wing, mean 126 mm. (ranging from 120-130 mm.); tail, 55 (47-60); tarsus, 41 (36-44); gape, 31 (30-33); weight, 76 gm. (63-82 gm.).

The lengths in the flesh of two specimens were 185 and 200 mm.

Colours of bare parts: iris, dark brown; bill, brownish-black, lighter on ridge and at base of lower mandible; legs, greyish-pink; inside of

mouth, pink-flesh.

The two Western Australian specimens are now in such a dilapidated condition, due to the ravages of insects, that complete measurements are impossible. At the time of their receipt Mr. C. F. H. Jenkins made some measurements of the Derby specimen which are given below, with measurements made by myself later in brackets:

Total length, 210 mm.; tail, 50 mm. (53); tarsus, 41 mm. (41); exposed culmen, 27 mm. The tarsus in the Wallal specimen (the only dimension that can now be taken) is 43 mm. In both specimens the medial crown stripe is black. The Wallal bird had red under the vent, but this was lacking in the Derby bird. In general plumage colours (blue wings and buff-yellow

underparts) they are very similar to the Fraser's Hill birds. Nomenclaturally the form migrating through Malaya and believed to be visiting Australia has had varied treatment in the literature. When originally identified at the W.A. Museum by Glauert and Jenkins the Australian specimens were referred to as Pitta megarhyncha. Mathews suggested they were close to Pitta moluccensis. Delacour (1947) placed all the Blue-winged Pittas in the species Pitta brachyura, with the breeding residents of Malaya, Sumatra and Banka as the race P. b. megarhyncha, and the westerly migrants as P. b. moluccensis. A second migrant race, P. b. nympha, visits Borneo from north-eastern Asia and Japan. To this wide concept of brachyura Vaurie (1959: 1) adds the Australian versicolor as a subspecies.

Through the kindness of Professor Ernst Mayr, I have been able to peruse the draft of the treatment of these pittas in Peters' Check-List of Birds of the World, in which the bird under discussion is separated out as a full species—Pitta moluccensis. The distribution of the nominate race, P. b. moluccensis (in which Mathews' kimberleyensis is placed as a synonym) is given as: "Burma, from Arakan and Pegu south through Tenasserim, Peninsular Siam (Bandon, Trana). On migration and in winter to Malay Peninsula, Sumatra, Rhio Archipelago Banjak Islands, Nias, Mentawi Islands, Java, North Natuna Islands; Borneo." The

Australian P. versicolor is retained as a separate species.

Pitta moluccensis moluccensis may now be added without reserve to the Australian list as an occasional migrant to the western part of northern Australia.

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^{*} Actually the name used in the original identification was megarhyncha; the nomenclatural situation is briefly discussed at the end of this article.